

poration shall not require producers in Erie County, Pennsylvania, to repay loan deficiency payments and marketing loan gains erroneously paid or determined to have been earned by the Commodity Credit Corporation for certain 1998 and 1999 crops under subtitle C of title I of the Federal Agriculture Improvement and Reform Act of 1996 (7 U.S.C. 7231 et seq.). In the case of a producer who has already made the repayment on or before May 13, 2002, the Commodity Credit Corporation shall reimburse the producer for the full amount of the repayment.

(Pub. L. 107–171, title I, § 1618, May 13, 2002, 116 Stat. 223.)

#### REFERENCES IN TEXT

Federal Agriculture Improvement and Reform Act of 1996, referred to in text, is Pub. L. 104–127, Apr. 4, 1996, 110 Stat. 888, as amended. Subtitle C of title I of the Act is classified generally to subchapter III (§ 7231 et seq.) of chapter 100 of this title. For complete classification of this Act to the Code, see Short Title note set out under section 7201 of this title and Tables.

### § 8002. Implementation funding and information management

#### (a) Additional funds for administrative costs

##### (1) In general

The Secretary of Agriculture, acting through the Farm Service Agency, may use not more than \$55,000,000 of funds of the Commodity Credit Corporation to cover administrative costs associated with the implementation of title I and the amendments made by that title.

##### (2) Availability

The funds referred to in paragraph (1) shall remain available to the Secretary until expended.

##### (3) Set-aside

Of the amount specified in paragraph (1), the Secretary shall use not less than \$5,000,000, but not more than \$8,000,000, to carry out subsection (b) of this section.

#### (b) Information management

##### (1) Development of system

The Secretary of Agriculture shall develop a comprehensive information management system, using appropriate technologies, to be used in implementing the programs administered by the Federal Crop Insurance Corporation and the Farm Service Agency.

##### (2) Elements

The information management system developed under this subsection shall be designed to—

- (A) improve access by agricultural producers to programs described in paragraph (1);
- (B) improve and protect the integrity of the information collected;
- (C) meet the needs of the agencies that require the data in the administration of their programs;
- (D) improve the timeliness of the collection of the information;
- (E) contribute to the elimination of duplication of information collection;

(F) lower the overall cost to the Department of Agriculture for information collection; and

(G) achieve such other goals as the Secretary considers appropriate.

#### (3) Reconciliation of current information management

The Secretary shall ensure that all current information of the Federal Crop Insurance Corporation and the Farm Service Agency is combined, reconciled, redefined, and reformatted in such a manner so that the agencies can use the common information management system developed under this subsection.

#### (4) Assistance for development of system

The Secretary shall enter into an agreement or contract with a non-Federal entity to assist the Secretary in the development of the information management system. The Secretary shall give preference in entering into an agreement or contract to entities that have—

(A) prior experience with the information and management systems of the Federal Crop Insurance Corporation; and

(B) collaborated with the Corporation in the development of the identification procedures required by section 1515(f) of this title.

#### (5) Use

The information collected using the information management system developed under this subsection may be made available to—

(A) any Federal agency that requires the information to carry out the functions of the agency; and

(B) any approved insurance provider, as defined in section 1502(b) of this title, with respect to producers insured by the approved insurance provider.

#### (6) Relation to other activities

This subsection shall not interfere with, or delay, existing agreements or requests for proposals of the Federal Crop Insurance Corporation or the Farm Service Agency regarding the information management activities known as data mining or data warehousing.

#### (c) Authorization of appropriations

In addition to amounts made available under subsection (a)(3) of this section, there are authorized to be appropriated such sums as are necessary to carry out subsection (b) of this section for each of fiscal years 2003 through 2008.

(Pub. L. 107–171, title X, § 10706, May 13, 2002, 116 Stat. 519.)

#### REFERENCES IN TEXT

Title I and the amendments made by that title, referred to in subsec. (a)(1), is title I of Pub. L. 107–171, May 13, 2002, 116 Stat. 143, which is classified principally to this chapter. For complete classification of title I to the Code, see References in Text note set out under section 7901 of this title and Tables.

### CHAPTER 107—RENEWABLE ENERGY RESEARCH AND DEVELOPMENT

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**§ 8101. Definitions**

In this chapter:

**(1) Administrator**

The term “Administrator” means the Administrator of the Environmental Protection Agency.

**(2) Biobased product**

The term “biobased product” means a product determined by the Secretary to be a commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products or renew-

able domestic agricultural materials (including plant, animal, and marine materials) or forestry materials.

**(3) Biomass****(A) In general**

The term “biomass” means any organic material that is available on a renewable or recurring basis.

**(B) Inclusions**

The term “biomass” includes—

- (i) agricultural crops;
- (ii) trees grown for energy production;
- (iii) wood waste and wood residues;
- (iv) plants (including aquatic plants and grasses);
- (v) residues;
- (vi) fibers;
- (vii) animal wastes and other waste materials; and
- (viii) fats, oils, and greases (including recycled fats, oils, and greases).

**(C) Exclusions**

The term “biomass” does not include—

- (i) paper that is commonly recycled; or
- (ii) unsegregated solid waste.

**(4) Renewable energy**

The term “renewable energy” means energy derived from—

- (A) a wind, solar, biomass, or geothermal source; or
- (B) hydrogen derived from biomass or water using an energy source described in subparagraph (A).

**(5) Rural small business**

The term “rural small business” has the meaning that the Secretary shall prescribe by regulation.

**(6) Secretary**

The term “Secretary” means the Secretary of Agriculture.

(Pub. L. 107–171, title IX, § 9001, May 13, 2002, 116 Stat. 475.)

## REFERENCES IN TEXT

This chapter, referred to in text, was in the original “this title”, meaning title IX of Pub. L. 107–171, May 13, 2002, 116 Stat. 475, which enacted this chapter and amended section 6711 of this title and provisions set out as a note under section 7624 of this title. For complete classification of title IX to the Code, see Tables.

## SHORT TITLE OF 2004 AMENDMENT

Pub. L. 108–199, div. A, title VII, § 778(a), Jan. 23, 2004, 118 Stat. 41, provided that: “This section [enacting section 8109 of this title] may be cited as the ‘Sun Grant Research Initiative Act of 2003’.”

## BIOMASS RESEARCH AND DEVELOPMENT

Pub. L. 106–224, title III, June 20, 2000, 114 Stat. 428; as amended by Pub. L. 107–171, title IX, § 9008, May 13, 2002, 116 Stat. 483; Pub. L. 108–148, title II, § 201, Dec. 3, 2003, 117 Stat. 1901, provided that:

“SEC. 301. SHORT TITLE.

“This title may be cited as the ‘Biomass Research and Development Act of 2000’.

“SEC. 302. FINDINGS.

“Congress finds that—

“(1) conversion of biomass into biobased industrial products offers outstanding potential for benefit to the national interest through—

“(A) improved strategic security and balance of payments;

“(B) healthier rural economies;

“(C) improved environmental quality;

“(D) near-zero net greenhouse gas emissions;

“(E) technology export; and

“(F) sustainable resource supply;

“(2) the key technical challenges to be overcome in order for biobased industrial products to be cost-competitive are finding new technology and reducing the cost of technology for converting biomass into desired biobased industrial products;

“(3) biobased fuels, such as ethanol, have the clear potential to be sustainable, low cost, and high performance fuels that are compatible with both current and future transportation systems and provide near-zero net greenhouse gas emissions;

“(4) biobased chemicals have the clear potential for environmentally benign product life cycles;

“(5) biobased power can—

“(A) provide environmental benefits;

“(B) promote rural economic development; and

“(C) diversify energy resource options;

“(6) many biomass feedstocks suitable for industrial processing show the clear potential for sustainable production, in some cases resulting in improved soil fertility and carbon sequestration;

“(7)(A) grain processing mills are biorefineries that produce a diversity of useful food, chemical, feed, and fuel products; and

“(B) technologies that result in further diversification of the range of value-added biobased industrial products can meet a key need for the grain processing industry;

“(8)(A) cellulosic feedstocks are attractive because of their low cost and widespread availability; and

“(B) research resulting in cost-effective technology to overcome the recalcitrance of cellulosic biomass would allow biorefineries to produce fuels and bulk chemicals on a very large scale, with a commensurately large realization of the benefit described in paragraph (1);

“(9) research into the fundamentals to understand important mechanisms of biomass conversion can be expected to accelerate the application and advancement of biomass processing technology by—

“(A) increasing the confidence and speed with which new technologies can be scaled up; and

“(B) giving rise to processing innovations based on new knowledge;

“(10) the added utility of biobased industrial products developed through improvements in processing technology would encourage the design of feedstocks that would meet future needs more effectively;

“(11) the creation of value-added biobased industrial products would create new jobs in construction, manufacturing, and distribution, as well as new higher-valued exports of products and technology;

“(12)(A) because of the relatively short-term time horizon characteristic of private sector investments, and because many benefits of biomass processing are in the national interest, it is appropriate for the Federal Government to provide precommercial investment in fundamental research and research-driven innovation in the biomass processing area; and

“(B) such an investment would provide a valuable complement to ongoing and past governmental support in the biomass processing area; and

“(13) several prominent studies, including studies by the President's Committee of Advisors on Science and Technology and the National Research Council—

“(A) support the potential for large research-driven advances in technologies for production of biobased industrial products as well as associated benefits; and

“(B) document the need for a focused, integrated, and innovation-driven research effort to provide the appropriate progress in a timely manner.

## “SEC. 303. DEFINITIONS.

“In this title:

“(1) **ADVISORY COMMITTEE.**—The term ‘Advisory Committee’ means the Biomass Research and Development Technical Advisory Committee established by section 306.

“(2) **BIOBASED INDUSTRIAL PRODUCT.**—The term ‘biobased industrial product’ means fuels, chemicals, building materials, or electric power or heat produced from biomass.

“(3) **BIOMASS.**—The term ‘biomass’ means any organic matter that is available on a renewable or recurring basis, including agricultural crops and trees, wood and wood wastes and residues, plants (including aquatic plants), grasses, residues, fibers, and animal wastes, municipal wastes, and other waste materials.

“(4) **BOARD.**—The term ‘Board’ means the Biomass Research and Development Board established by section 305.

“(5) **INITIATIVE.**—The term ‘Initiative’ means the Biomass Research and Development Initiative established under section 307.

“(6) **INSTITUTION OF HIGHER EDUCATION.**—The term ‘institution of higher education’ has the meaning given the term in section 102(a) of the Higher Education Act of 1965 (20 U.S.C. 1002(a)).

“(7) **NATIONAL LABORATORY.**—The term ‘national laboratory’ has the meaning given the term ‘laboratory’ in section 12(d) of the Stevenson-Wylder Technology Innovation Act of 1980 (15 U.S.C. 3710a(d)).

“(8) **POINT OF CONTACT.**—The term ‘point of contact’ means a point of contact designated under section 304(d).

“(9) **PROCESSING.**—The term ‘processing’ means the derivation of biobased industrial products from biomass, including—

“(A) feedstock production;

“(B) harvest and handling;

“(C) pretreatment or thermochemical processing;

“(D) fermentation;

“(E) catalytic processing;

“(F) product recovery; and

“(G) coproduct production.

“(10) **RESEARCH AND DEVELOPMENT.**—The term ‘research and development’ means research, development, and demonstration.

## “SEC. 304. COOPERATION AND COORDINATION IN BIOMASS RESEARCH AND DEVELOPMENT.

“(a) **IN GENERAL.**—The Secretary of Agriculture and the Secretary of Energy shall cooperate with respect to, and coordinate, policies and procedures that promote research and development leading to the production of biobased industrial products.

“(b) **PURPOSES.**—The purposes of the cooperation and coordination shall be—

“(1) to understand the key mechanisms underlying the recalcitrance of biomass for conversion into biobased industrial products;

“(2) to develop new and cost-effective technologies that would result in large-scale commercial production of low cost and sustainable biobased industrial products;

“(3) to ensure that biobased industrial products are developed in a manner that enhances their economic, energy security, and environmental benefits; and

“(4) to promote the development and use of agricultural and energy crops for conversion into biobased industrial products.

“(c) **AREAS.**—In carrying out this title, the Secretary of Agriculture and the Secretary of Energy, in consultation with heads of appropriate departments and agencies, shall promote research and development—

“(1) to advance the availability and widespread use of energy efficient, economically competitive, and environmentally sound biobased industrial products in a manner that is consistent with the goals of the United States relating to sustainable and secure supplies of food, chemicals, and fuel;

“(2) to ensure full consideration of Federal land and land management programs as potential feedstock resources for biobased industrial products; and

“(3) to assess the environmental, economic, and social impact of production of biobased industrial products from biomass on a large scale.

“(d) POINTS OF CONTACT.—

“(1) IN GENERAL.—To coordinate research and development programs and activities relating to biobased industrial products that are carried out by their respective Departments—

“(A) the Secretary of Agriculture shall designate, as the point of contact for the Department of Agriculture, an officer of the Department of Agriculture appointed by the President to a position in the Department before the date of the designation, by and with the advice and consent of the Senate; and

“(B) the Secretary of Energy shall designate, as the point of contact for the Department of Energy, an officer of the Department of Energy appointed by the President to a position in the Department before the date of the designation, by and with the advice and consent of the Senate.

“(2) DUTIES.—The points of contact shall jointly—

“(A) assist in arranging interlaboratory and site-specific supplemental agreements for research and development projects relating to biobased industrial products;

“(B) serve as cochairpersons of the Board;

“(C) administer the Initiative; and

“(D) respond in writing to each recommendation of the Advisory Committee made under section 306(c).

“SEC. 305. BIOMASS RESEARCH AND DEVELOPMENT BOARD.

“(a) ESTABLISHMENT.—There is established the Biomass Research and Development Board, which shall supersede the Interagency Council on Biobased Products and Bioenergy established by Executive Order No. 13134 [set out below], to coordinate programs within and among departments and agencies of the Federal Government for the purpose of promoting the use of biobased industrial products by—

“(1) maximizing the benefits deriving from Federal grants and assistance; and

“(2) bringing coherence to Federal strategic planning.

“(b) MEMBERSHIP.—The Board shall consist of—

“(1) the point of contact of the Department of Energy designated under section 304(d)(1)(B), who shall serve as cochairperson of the Board;

“(2) the point of contact of the Department of Agriculture designated under section 304(d)(1)(A), who shall serve as cochairperson of the Board;

“(3) a senior officer of each of the Department of the Interior, the Environmental Protection Agency, the National Science Foundation, and the Office of Science and Technology Policy, each of whom shall—

“(A) be appointed by the head of the respective agency; and

“(B) have a rank that is equivalent to the rank of the points of contact; and

“(4) at the option of the Secretary of Agriculture and the Secretary of Energy, other members appointed by the Secretaries (after consultation with the members described in paragraphs (1) through (3)).

“(c) DUTIES.—The Board shall—

“(1) coordinate research and development activities relating to biobased industrial products—

“(A) between the Department of Agriculture and the Department of Energy; and

“(B) with other departments and agencies of the Federal Government; and

“(2) provide recommendations to the points of contact concerning administration of this title.

“(d) FUNDING.—Each agency represented on the Board is encouraged to provide funds for any purpose under this title.

“(e) MEETINGS.—The Board shall meet at least quarterly to enable the Board to carry out the duties of the Board under subsection (c).

“SEC. 306. BIOMASS RESEARCH AND DEVELOPMENT TECHNICAL ADVISORY COMMITTEE.

“(a) ESTABLISHMENT.—There is established the Biomass Research and Development Technical Advisory

Committee, which shall supersede the Advisory Committee on Biobased Products and Bioenergy established by Executive Order No. 13134 [set out below]—

“(1) to advise the Secretary of Energy, the Secretary of Agriculture, and the points of contact concerning—

“(A) the technical focus and direction of requests for proposals issued under the Initiative; and

“(B) procedures for reviewing and evaluating the proposals;

“(2) to facilitate consultations and partnerships among Federal and State agencies, agricultural producers, industry, consumers, the research community, and other interested groups to carry out program activities relating to the Initiative; and

“(3) to evaluate and perform strategic planning on program activities relating to the Initiative.

“(b) MEMBERSHIP.—

“(1) IN GENERAL.—The Advisory Committee shall consist of—

“(A) an individual affiliated with the biobased industrial products industry;

“(B) an individual affiliated with an institution of higher education who has expertise in biobased industrial products;

“(C) two prominent engineers or scientists from government or academia who have expertise in biobased industrial products;

“(D) an individual affiliated with a commodity trade association;

“(E) an individual affiliated with an environmental or conservation organization;

“(F) an individual associated with State government who has expertise in biobased industrial products;

“(G) an individual with expertise in energy analysis;

“(H) an individual with expertise in the economics of biobased industrial products;

“(I) an individual with expertise in agricultural economics; and

“(J) at the option of the points of contact, other members.

“(2) APPOINTMENT.—The members of the Advisory Committee shall be appointed by the points of contact.

“(c) DUTIES.—The Advisory Committee shall—

“(1) advise the points of contact with respect to the Initiative; and

“(2) evaluate whether, and make recommendations in writing to the Board to ensure that—

“(A) funds authorized for the Initiative are distributed and used in a manner that is consistent with the goals of the Initiative;

“(B) the points of contact are funding proposals under this title that are selected on the basis of merit, as determined by an independent panel of scientific and technical peers; and

“(C) activities under this title are carried out in accordance with this title.

“(d) COORDINATION.—To avoid duplication of effort, the Advisory Committee shall coordinate its activities with those of other Federal advisory committees working in related areas.

“(e) MEETINGS.—The Advisory Committee shall meet at least quarterly to enable the Advisory Committee to carry out the duties of the Advisory Committee under subsection (c).

“(f) TERMS.—Members of the Advisory Committee shall be appointed for a term of 3 years, except that—

“(1) one-third of the members initially appointed shall be appointed for a term of 1 year; and

“(2) one-third of the members initially appointed shall be appointed for a term of 2 years.

“SEC. 307. BIOMASS RESEARCH AND DEVELOPMENT INITIATIVE.

“(a) IN GENERAL.—The Secretary of Agriculture and the Secretary of Energy, acting through their respective points of contact and in consultation with the

Board, shall establish and carry out a Biomass Research and Development Initiative under which competitively awarded grants, contracts, and financial assistance are provided to, or entered into with, eligible entities to carry out research on biobased industrial products.

“(b) PURPOSES.—The purposes of grants, contracts, and assistance under this section shall be—

“(1) to stimulate collaborative activities by a diverse range of experts in all aspects of biomass processing for the purpose of conducting fundamental and innovation-targeted research and technology development;

“(2) to enhance creative and imaginative approaches toward biomass processing that will serve to develop the next generation of advanced technologies making possible low cost and sustainable biobased industrial products;

“(3) to strengthen the intellectual resources of the United States through the training and education of future scientists, engineers, managers, and business leaders in the field of biomass processing; and

“(4) to promote integrated research partnerships among colleges, universities, national laboratories, Federal and State research agencies, and the private sector as the best means of overcoming technical challenges that span multiple research and engineering disciplines and of gaining better leverage from limited Federal research funds.

“(c) ELIGIBLE ENTITIES.—

“(1) IN GENERAL.—To be eligible for a grant, contract, or assistance under this section, an applicant shall be—

“(A) an institution of higher education;

“(B) a national laboratory;

“(C) a Federal research agency;

“(D) a State research agency;

“(E) a private sector entity;

“(F) a nonprofit organization; or

“(G) a consortium of two or more entities described in subparagraphs (A) through (F).

“(2) ADMINISTRATION.—After consultation with the Board, the points of contact shall—

“(A) publish annually one or more joint requests for proposals for grants, contracts, and assistance under this section;

“(B) establish a priority in grants, contracts, and assistance under this section for research that—

“(i) demonstrates potential for significant advances in biomass processing;

“(ii) demonstrates potential to substantially further scale-sensitive national objectives such as—

“(I) sustainable resource supply;

“(II) reduced greenhouse gas emissions;

“(III) healthier rural economies; and

“(IV) improved strategic security and trade balances; and

“(iii) would improve knowledge of important biomass processing systems that demonstrate potential for commercial applications;

“(C) require that grants, contracts, and assistance under this section be awarded competitively, on the basis of merit, after the establishment of procedures that provide for scientific peer review by an independent panel of scientific and technical peers; and

“(D) give preference to applications that—

“(i) involve a consortia of experts from multiple institutions; and

“(ii) encourage the integration of disciplines and application of the best technical resources.

“(d) USES OF GRANTS, CONTRACTS, AND ASSISTANCE.—A grant, contract, or assistance under this section may be used to conduct—

“(1) research on process technology for overcoming the recalcitrance of biomass, including research on key mechanisms, advanced technologies, and demonstration test beds for—

“(A) feedstock pretreatment and hydrolysis of cellulose and hemicellulose, including new technologies for—

“(i) enhanced sugar yields;

“(ii) lower overall chemical use;

“(iii) less costly materials; and

“(iv) cost reduction;

“(B) development of novel organisms and other approaches to substantially lower the cost of cellulase enzymes and enzymatic hydrolysis, including dedicated cellulase production and consolidated bioprocessing strategies; and

“(C) approaches other than enzymatic hydrolysis for overcoming the recalcitrance of cellulosic biomass;

“(2) research on technologies for diversifying the range of products that can be efficiently and cost-competitively produced from biomass, including research on—

“(A) metabolic engineering of biological systems (including the safe use of genetically modified crops) to produce novel products, especially commodity products, or to increase product selectivity and tolerance, with a research priority for the development of biobased industrial products that can compete in performance and cost with fossil-based products;

“(B) catalytic processing to convert intermediates of biomass processing into products of interest;

“(C) separation technologies for cost-effective product recovery and purification;

“(D) approaches other than metabolic engineering and catalytic conversion of intermediates of biomass processing;

“(E) advanced biomass gasification technologies, including coproduction of power and heat as an integrated component of biomass processing, with the possibility of generating excess electricity for sale; and

“(F) related research in advanced turbine and stationary fuel cell technology for production of electricity from biomass; and

“(3) research aimed at ensuring the environmental performance and economic viability of biobased industrial products and their raw material input of biomass when considered as an integrated system, including research on—

“(A) the analysis of, and strategies to enhance, the environmental performance and sustainability of biobased industrial products, including research on—

“(i) accurate measurement and analysis of greenhouse gas emissions, carbon sequestration, and carbon cycling in relation to the life cycle of biobased industrial products and feedstocks with respect to other alternatives;

“(ii) evaluation of current and future biomass resource availability;

“(iii) development and analysis of land management practices and alternative biomass cropping systems that ensure the environmental performance and sustainability of biomass production and harvesting;

“(iv) the land, air, water, and biodiversity impacts of large-scale biomass production, processing, and use of biobased industrial products relative to other alternatives; and

“(v) biomass gasification and combustion to produce electricity;

“(B) the analysis of, and strategies to enhance, the economic viability of biobased industrial products, including research on—

“(i) the cost of the required process technology;

“(ii) the impact of coproducts, including food, animal feed, and fiber, on biobased industrial product price and large-scale economic viability; and

“(iii) interactions between an emergent biomass refining industry and the petrochemical refining infrastructure; and

“(C) the field and laboratory research related to feedstock production with the interrelated goals of enhancing the sustainability, increasing productiv-

ity, and decreasing the cost of biomass processing, including research on—

“(i) altering biomass to make biomass easier and less expensive to process;

“(ii) existing and new agricultural and energy crops that provide a sustainable resource for conversion to biobased industrial products while simultaneously serving as a source for coproducts such as food, animal feed, and fiber;

“(iii) improved technologies for harvest, collection, transport, storage, and handling of crop and residue feedstocks; and

“(iv) development of economically viable cropping systems that improve the conservation and restoration of marginal land;

“(4) any research and development in technologies or processes determined by the Secretary of Agriculture and the Secretary of Energy, acting through their respective points of contact and in consultation with the Board, to be consistent with the purposes described in subsection (b) and the priority described in subsection (c)(2)(B); or

“(5) research to integrate silviculture, harvesting, product development, processing information, and economic evaluation to provide the science, technology, and tools to forest managers and community developers for use in evaluating forest treatment and production alternatives, including—

“(A) to develop tools that would enable land managers, locally or in a several-State region, to estimate—

“(i) the cost to deliver varying quantities of wood to a particular location; and

“(ii) the amount that could be paid for stumpage if delivered wood was used for a specific mix of products;

“(B) to conduct research focused on developing appropriate thinning systems and equipment designs that are—

“(i) capable of being used on land without significant adverse effects on the land;

“(ii) capable of handling large and varied landscapes;

“(iii) adaptable to handling a wide variety of tree sizes;

“(iv) inexpensive; and

“(v) adaptable to various terrains; and

“(C) to develop, test, and employ in the training of forestry managers and community developers curricula materials and training programs on matters described in subparagraphs (A) and (B).

“(e) TECHNOLOGY AND INFORMATION TRANSFER TO AGRICULTURAL USERS.—

“(1) IN GENERAL.—The Administrator of the Cooperative State Research, Education, and Extension Service and the Chief of the Natural Resources Conservation Service shall ensure that applicable research results and technologies from the Initiative are adapted, made available, and disseminated through their respective services, as appropriate.

“(2) REPORT.—Not later than 5 years after the date of the enactment of this Act [June 20, 2000], the Administrator of the Cooperative State Research, Education, and Extension Service and the Chief of the Natural Resources Conservation Service shall submit to the committees of Congress with jurisdiction over the Initiative a report on the activities conducted by the services under this subsection.

“SEC. 308. ADMINISTRATIVE SUPPORT AND FUNDS.

“(a) IN GENERAL.—To the extent administrative support and funds are not provided by other agencies under subsection (b), the Secretary of Energy and the Secretary of Agriculture may provide such administrative support and funds of the Department of Energy and the Department of Agriculture to the Board and the Advisory Committee as are necessary to enable the Board and the Advisory Committee to carry out their duties under this title.

“(b) OTHER AGENCIES.—The heads of the agencies referred to in section 305(b)(3), and the other members ap-

pointed under section 305(b)(4), may, and are encouraged to, provide administrative support and funds of their respective agencies to the Board and the Advisory Committee.

“(c) LIMITATION.—Not more than 4 percent of the amount appropriated for each fiscal year under section 307(f) may be used to pay the administrative costs of carrying out this title.

“SEC. 309. REPORTS.

“(a) INITIAL REPORT.—Not later than 180 days after the date of the enactment of this Act [June 20, 2000], the Secretary of Energy and the Secretary of Agriculture shall jointly submit to Congress a report that—

“(1) identifies the points of contact, the members of the Board, and the members of the Advisory Committee;

“(2) describes the status of current biobased industrial product research and development efforts in both the Federal Government and private sector;

“(3) includes a section prepared by the Board that establishes a set of criteria to assess the potential of biobased industrial products, which shall include for both biomass production and transformation into biobased industrial products—

“(A) an energy accounting;

“(B) an environmental impact assessment; and

“(C) an economic assessment; and

“(4) describes the research and development goals of the Initiative, including how funds will be allocated in order to accomplish those goals.

“(b) ANNUAL REPORTS.—For each fiscal year for which funds are made available to carry out this title, the Secretary of Energy and the Secretary of Agriculture shall jointly submit to Congress a detailed report on—

“(1) the status and progress of the Initiative, including a report from the Advisory Committee on whether funds appropriated for the Initiative have been distributed and used in a manner that—

“(A) is consistent with the purposes described in section 307(b);

“(B) uses the set of criteria established under subsection (a)(3); and

“(C) takes into account any recommendations that have been made by the Advisory Committee;

“(2) the general status of cooperation and research and development efforts carried out at each agency with respect to biobased industrial products, including a report from the Advisory Committee on whether the points of contact are funding proposals that are selected under section 307(c)(2)(C); and

“(3) the plans of the Secretary of Energy and the Secretary of Agriculture for addressing concerns raised in the report, including concerns raised by the Advisory Committee.

“SEC. 310. FUNDING.

“(a) FUNDING.—Of funds of the Commodity Credit Corporation, the Secretary shall make available to carry out this title—

“(1) \$5,000,000 for fiscal year 2002; and

“(2) \$14,000,000 for each of fiscal years 2003 through 2007;

to remain available until expended.

“(b) AUTHORIZATION OF APPROPRIATIONS.—In addition to amounts transferred under subsection (a), there are authorized to be appropriated to carry out this title \$54,000,000 for each of fiscal years 2002 through 2007.

“SEC. 311. TERMINATION OF AUTHORITY.

“The authority provided under this title shall terminate on September 30, 2007.”

#### EX. ORD. NO. 13134. DEVELOPING AND PROMOTING BIOBASED PRODUCTS AND BIOENERGY

Ex. Ord. No. 13134, Aug. 12, 1999, 64 F.R. 44639, as amended by Ex. Ord. No. 13225, §3(a), Sept. 28, 2001, 66 F.R. 50291, provided:

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Federal Advisory Committee

Act, as amended (5 U.S.C. App.), and in order to stimulate the creation and early adoption of technologies needed to make biobased products and bioenergy cost-competitive in large national and international markets, it is hereby ordered as follows:

**SECTION 1. Policy.** Current biobased product and bioenergy technology has the potential to make renewable farm and forestry resources major sources of affordable electricity, fuel, chemicals, pharmaceuticals, and other materials. Technical advances in these areas can create an expanding array of exciting new business and employment opportunities for farmers, foresters, ranchers, and other businesses in rural America. These technologies can create new markets for farm and forest waste products, new economic opportunities for under-used land, and new value-added business opportunities. They also have the potential to reduce our Nation's dependence on foreign oil, improve air quality, water quality, and flood control, decrease erosion, and help minimize net production of greenhouse gases. It is the policy of this Administration, therefore, to develop a comprehensive national strategy, including research, development, and private sector incentives, to stimulate the creation and early adoption of technologies needed to make biobased products and bioenergy cost-competitive in large national and international markets.

**SEC. 2. Establishment of the Interagency Council on Biobased Products and Bioenergy.** (a) There is established the Interagency Council on Biobased Products and Bioenergy (the "Council"). The Council shall be composed of the Secretaries of Agriculture, Commerce, Energy, and the Interior, the Administrator of the Environmental Protection Agency, the Director of the Office of Management and Budget, the Assistant to the President for Science and Technology, the Director of the National Science Foundation, the Federal Environmental Executive, and the heads of other relevant agencies as may be determined by the Co-Chairs of the Council. Members may serve on the Council through designees. Designees shall be senior officials who report directly to the agency head (Assistant Secretary or equivalent).

(b) The Secretary of Agriculture and the Secretary of Energy shall serve as Co-Chairs of the Council.

(c) The Council shall prepare annually a strategic plan for the President outlining overall national goals in the development and use of biobased products and bioenergy in an environmentally sound manner and how these goals can best be achieved through Federal programs and integrated planning. The goals shall include promoting national economic growth with specific attention to rural economic interests, energy security, and environmental sustainability and protection. These strategic plans shall be compatible with the national goal of producing safe and affordable supplies of food, feed, and fiber in a way that is sustainable and protects the environment, and shall include measurable objectives. Specifically, these strategic plans shall cover the following areas:

(1) biobased products, including commercial and industrial chemicals, pharmaceuticals, products with large carbon sequestering capacity, and other materials; and

(2) biomass used in the production of energy (electricity; liquid, solid, and gaseous fuels; and heat).

(d) To ensure that the United States takes full advantage of the potential economic and environmental benefits of bioenergy, these strategic plans shall be based on analyses of: (1) the economic impacts of expanded biomass production and use; and (2) the impacts on national environmental objectives, including reducing greenhouse gas emissions. Specifically, these plans shall include:

(1) a description of priorities for research, development, demonstration, and other investments in biobased products and bioenergy;

(2) a coordinated Federal program of research, building on the research budgets of each participating agency; and

(3) proposals for using existing agency authorities to encourage the adoption and use of biobased products and bioenergy and recommended legislation for modifying these authorities or creating new authorities if needed.

(e) The first annual strategic plan shall be submitted to the President within 8 months from the date of this order.

(f) The Council shall coordinate its activities with actions called for in all relevant Executive orders and shall not be in conflict with proposals advocated by other Executive orders.

[SECS. 3 and 4. Revoked by Ex. Ord. No. 13225, §3(a), Sept. 28, 2001, 66 F.R. 50291.]

**SEC. 5. Duties of the Departments of Agriculture and Energy.** The Secretaries of the Departments of Agriculture and Energy, to the extent permitted by law and subject to the availability of appropriations, shall each establish a working group on biobased products and biobased activities in their respective Departments. Consistent with the Federal biobased products and bioenergy strategic plans described in sections 2(c) and (d) of this order, the working groups shall:

(1) provide strategic planning and policy advice on the Department's research, development, and commercialization of biobased products and bioenergy; and

(2) identify research activities and demonstration projects to address new opportunities in the areas of biomass production, biobased product and bioenergy production, and related fundamental research.

The chair of each Department's working group shall be a senior official who reports directly to the agency head. If the Secretary of Agriculture or Energy serves on the Interagency Council on Biobased Products and Bioenergy through a designee, the designee should be the chair of the Department's working group.

**SEC. 6. Establishment of a National Biobased Products and Bioenergy Coordination Office.** Within 120 days of this order, the Secretaries of Agriculture and Energy shall establish a joint National Biobased Products and Bioenergy Coordination Office ("Office") to ensure effective day-to-day coordination of actions designed to implement the strategic plans and guidance provided by the Council and respond to recommendations made by the Committee. All agencies represented on the Council, or that have capabilities and missions related to the work of the Council, shall be invited to participate in the operation of the Office. The Office shall:

(a) serve as an executive secretariat and support the work of the Council, as determined by the Council, including the coordination of multi-agency, integrated research, development, and demonstration ("RD&D") activities;

(b) use advanced communication and computational tools to facilitate research coordination and collaborative research by participating Federal and nonfederal research facilities and to perform activities in support of RD&D on biobased product and bioenergy development, including strategic planning, program analysis and evaluation, communications networking, information and data dissemination and technology transfer, and collaborative team building for RD&D projects; and

(c) facilitate use of new information technologies for rapid dissemination of information on biobased products and bioenergy to and among farm operators; agribusiness, chemical, forest products, energy, and other business sectors; the university community; and public interest groups that could benefit from timely and reliable information.

**SEC. 7. Definitions.** For the purposes of this order: (a) The term "biomass" means any organic matter that is available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, wood and wood residues, animal wastes, and other waste materials.

(b) The term "biobased product," as defined in Executive Order 13101 [42 U.S.C. 6961 note], means a commercial or industrial product (other than food or feed) that

utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials.

(c) The term “bioenergy” means biomass used in the production of energy (electricity; liquid, solid, and gaseous fuels; and heat).

(d) The term “old growth timber” means timber of a forest from the late successional stage of forest development. The forest contains live and dead trees of various sizes, species, composition, and age class structure. The age and structure of old growth varies significantly by forest type and from one biogeoclimatic zone to another.

SEC. 8. *Judicial Review.* This order does not create any enforceable rights against the United States, its agencies, its officers, or any person.

## **§ 8102. Federal procurement of biobased products**

### **(a) Application of section**

Except as provided in subsection (c) of this section, each Federal agency shall comply with the requirements set forth in this section and any regulations issued under this section, with respect to any purchase or acquisition of a procurement item where the purchase price of the item exceeds \$10,000 or where the quantity of such items or of functionally equivalent items purchased or acquired in the course of the preceding fiscal year was \$10,000 or more.

### **(b) Procurement subject to other law**

Any procurement, by any Federal agency, which is subject to regulations of the Administrator under section 6962 of title 42, shall not be subject to the requirements of this section to the extent that such requirements are inconsistent with such regulations.

### **(c) Procurement preference**

(1) Except as provided in paragraph (2), after the date specified in applicable guidelines prepared pursuant to subsection (e) of this section, each Federal agency which procures any items designated in such guidelines shall, in making procurement decisions, give preference to such items composed of the highest percentage of biobased products practicable, consistent with maintaining a satisfactory level of competition, considering such guidelines.

(2) **AGENCY FLEXIBILITY.**—Notwithstanding paragraph (1), an agency may decide not to procure such items if the agency determines that the items—

(A) are not reasonably available within a reasonable period of time;

(B) fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies; or

(C) are available only at an unreasonable price.

(3) After the date specified in any applicable guidelines prepared pursuant to subsection (e) of this section, contracting offices shall require that, with respect to biobased products, vendors certify that the biobased products to be used in the performance of the contract will comply with the applicable specifications or other contractual requirements.

### **(d) Specifications**

All Federal agencies that have the responsibility for drafting or reviewing specifications for

procurement items procured by Federal agencies shall, within one year after the date of publication of applicable guidelines under subsection (e) of this section, or as otherwise specified in such guidelines, assure that such specifications require the use of biobased products consistent with the requirements of this section.

### **(e) Guidelines**

#### **(1) In general**

The Secretary, after consultation with the Administrator, the Administrator of General Services, and the Secretary of Commerce (acting through the Director of the National Institute of Standards and Technology), shall prepare, and from time to time revise, guidelines for the use of procuring agencies in complying with the requirements of this section. Such guidelines shall—

(A) designate those items which are or can be produced with biobased products and whose procurement by procuring agencies will carry out the objectives of this section;

(B) set forth recommended practices with respect to the procurement of biobased products and items containing such materials and with respect to certification by vendors of the percentage of biobased products used; and

(C) provide information as to the availability, relative price, performance, and environmental and public health benefits, of such materials and items and where appropriate shall recommend the level of biobased material to be contained in the procured product.

#### **(2) Considerations**

In making the designation under paragraph (1)(A), the Secretary shall, at a minimum, consider—

(A) the availability of such items; and

(B) the economic and technological feasibility of using such items, including life cycle costs.

#### **(3) Final guidelines**

The Secretary shall prepare final guidelines under this section within 180 days after May 13, 2002.

### **(f) Office of Federal Procurement Policy**

The Office of Federal Procurement Policy, in cooperation with the Secretary, shall implement the requirements of this section. It shall be the responsibility of the Office of Federal Procurement Policy to coordinate this policy with other policies for Federal procurement to implement the requirements of this section, and, every two years beginning in 2003, to report to the Congress on actions taken by Federal agencies and the progress made in the implementation of this section, including agency compliance with subsection (d) of this section.

### **(g) Procurement program**

(1) Within one year after the date of publication of applicable guidelines under subsection (e) of this section, each Federal agency shall develop a procurement program which will assure that items composed of biobased products will be purchased to the maximum extent prac-



licable and which is consistent with applicable provisions of Federal procurement law.

(2) Each procurement program required under this subsection shall, at a minimum, contain—

(A) a biobased products preference program;

(B) an agency promotion program to promote the preference program adopted under subparagraph (A); and

(C) annual review and monitoring of the effectiveness of an agency's procurement program.

(3) In developing the preference program, the following options shall be considered for adoption:

(A) **CASE-BY-CASE POLICY DEVELOPMENT.**—Subject to the limitations of subsection (c)(2)(A) through (C) of this section, a policy of awarding contracts to the vendor offering an item composed of the highest percentage of biobased products practicable. Subject to such limitations, agencies may make an award to a vendor offering items with less than the maximum biobased products content.

(B) **MINIMUM CONTENT STANDARDS.**—Minimum biobased products content specifications which are set in such a way as to assure that the biobased products content required is consistent with the requirements of this section, without violating the limitations of subsection (c)(2) (A) through (C) of this section.

Federal agencies shall adopt one of the options set forth in subparagraphs (A) and (B) or a substantially equivalent alternative, for inclusion in the procurement program.

#### **(h) Labeling**

##### **(1) In general**

The Secretary, in consultation with the Administrator, shall establish a voluntary program under which the Secretary authorizes producers of biobased products to use the label “U.S.D.A. Certified Biobased Product”.

##### **(2) Eligibility criteria**

Within one year after May 13, 2002, the Secretary, in consultation with the Administrator, shall issue criteria for determining which products may qualify to receive the label under paragraph (1). The criteria shall encourage the purchase of products with the maximum biobased content, and should, to the maximum extent possible, be consistent with the guidelines issued under subsection (e) of this section.

##### **(3) Use of the label**

The Secretary shall ensure that the label referred to in paragraph (1) is used only on products that meet the criteria issued pursuant to paragraph (2).

##### **(4) Recognition**

The Secretary shall establish a voluntary program to recognize Federal agencies and private entities that use a substantial amount of biobased products.

#### **(i) Limitation**

Nothing in this section shall apply to the procurement of motor vehicle fuels or electricity.

#### **(j) Funding**

##### **(1) Authorization of appropriations**

There are authorized to be appropriated such sums as may be necessary to carry out this section.

##### **(2) Funding for testing of biobased products**

###### **(A) In general**

Of the funds of the Commodity Credit Corporation, the Secretary shall use \$1,000,000 for each of fiscal years 2002 through 2007 to support testing of biobased products to carry out this section.

###### **(B) Use of funds**

Amounts made available under subparagraph (A) may be used to support contracts or cooperative agreements with entities that have experience and special skills to conduct such testing.

###### **(C) Priority**

At the discretion of the Secretary, the Secretary may give priority to the testing of products for which private sector firms provide cost sharing for the testing.

(Pub. L. 107-171, title IX, §9002, May 13, 2002, 116 Stat. 476.)

#### **§ 8103. Biorefinery development grants**

##### **(a) Purpose**

The purpose of this section is to assist in the development of new and emerging technologies for the use of biomass, including lignocellulosic biomass, so as to—

- (1) develop transportation and other fuels, chemicals, and energy from renewable sources;
- (2) increase the energy independence of the United States;
- (3) provide beneficial effects on conservation, public health, and the environment;
- (4) diversify markets for raw agricultural and forestry products; and
- (5) create jobs and enhance the economic development of the rural economy.

##### **(b) Definitions**

In this section:

###### **(1) Advisory Committee**

The term “Advisory Committee” means the Biomass Research and Development Technical Advisory Committee established by section 306 of the Biomass Research and Development Act of 2000 [7 U.S.C. 8101 note] (Public Law 106-224).

###### **(2) Biorefinery**

The term “biorefinery” means equipment and processes that—

- (A) convert biomass into fuels and chemicals; and
- (B) may produce electricity.

###### **(3) Board**

The term “Board” means the Biomass Research and Development Board established by section 305 of the Biomass Research and Development Act of 2000 [7 U.S.C. 8101 note] (Public Law 106-224).

###### **(4) Indian tribe**

The term “Indian tribe” has the meaning given the term in section 450b of title 25.

**(c) Grants**

The Secretary shall award grants to eligible entities to assist in paying the cost of development and construction of biorefineries to carry out projects to demonstrate the commercial viability of 1 or more processes for converting biomass to fuels or chemicals.

**(d) Eligible entities**

An individual, corporation, farm cooperative, association of farmers, national laboratory, institution of higher education (as defined in section 1001 of title 20), State or local energy agency or office, Indian tribe, or consortium comprised of any of those entities shall be eligible to receive a grant under subsection (c) of this section.

**(e) Competitive basis for awards****(1) In general**

The Secretary shall award grants under subsection (c) of this section on a competitive basis after consulting the Board and Advisory Committee.

**(2) Selection criteria****(A) In general**

In selecting projects to receive grants under subsection (c) of this section, the Secretary—

- (i) shall select projects based on the likelihood that the projects will demonstrate the commercial viability of a new and emerging process for converting biomass into fuels, chemicals, or energy; and
- (ii) may consider the likelihood that the projects will produce electricity.

**(B) Factors**

The factors to be considered under subparagraph (A) may include—

- (i) the potential market for the product or products;
- (ii) the level of financial participation by the applicants;
- (iii) the availability of adequate funding from other sources;
- (iv) the beneficial impact on resource conservation, public health, and the environment;
- (v) the participation of producer associations and cooperatives;
- (vi) the timeframe in which the project will be operational;
- (vii) the potential for rural economic development;
- (viii) the participation of multiple eligible entities; and
- (ix) the potential for developing advanced industrial biotechnology approaches.

**(f) Cost sharing****(1) In general**

The amount of a grant for a project awarded under subsection (c) of this section shall not exceed 30 percent of the cost of the project.

**(2) Form of grantee share****(A) In general**

The grantee share of the cost of a project may be made in the form of cash or the pro-

vision of services, material, or other in-kind contributions.

**(B) Limitation**

The amount of the grantee share of the cost of a project that is made in the form of the provision of services, material, or other in-kind contributions shall not exceed 25 percent of the amount of the grantee share determined under paragraph (1).

**(g) Consultation**

In carrying out this section, the Secretary shall consult with the Secretary of Energy.

**(h) Authorization of appropriations**

There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2002 through 2007.

(Pub. L. 107-171, title IX, §9003, May 13, 2002, 116 Stat. 478.)

**§ 8104. Biodiesel fuel education program****(a) Establishment**

The Secretary shall, under such terms and conditions as are appropriate, make competitive grants to eligible entities to educate governmental and private entities that operate vehicle fleets, other interested entities (as determined by the Secretary), and the public about the benefits of biodiesel fuel use.

**(b) Eligible entities**

To receive a grant under subsection (a) of this section, an entity—

- (1) shall be a nonprofit organization or institution of higher education (as defined in section 1001 of title 20);
- (2) shall have demonstrated knowledge of biodiesel fuel production, use, or distribution; and
- (3) shall have demonstrated the ability to conduct educational and technical support programs.

**(c) Consultation**

In carrying out this section, the Secretary shall consult with the Secretary of Energy.

**(d) Funding**

Of the funds of the Commodity Credit Corporation, the Secretary shall make available to carry out this section \$1,000,000 for each of fiscal years 2003 through 2007.

(Pub. L. 107-171, title IX, §9004, May 13, 2002, 116 Stat. 480.)

**§ 8105. Energy audit and renewable energy development program****(a) In general**

The Secretary shall make competitive grants to eligible entities to carry out a program to assist farmers, ranchers, and rural small businesses in becoming more energy efficient and in using renewable energy technology and resources.

**(b) Eligible entities**

Entities eligible to carry out a program under subsection (a) of this section are—

- (1) a State energy or agricultural office;

(2) a regional or State-based energy organization or energy organization of an Indian tribe (as defined in section 450b of title 25);

(3) a land-grant college or university (as defined in section 3103 of this title) or other institution of higher education (as defined in section 1001 of title 20);

(4) a rural electric cooperative or utility;

(5) a nonprofit organization; and

(6) any other entity, as determined by the Secretary.

**(c) Merit review**

**(1) Merit review process**

The Secretary shall establish a merit review process to review applications for grants under subsection (a) of this section that uses the expertise of other Federal agencies, industry, and nongovernmental organizations.

**(2) Selection criteria**

In reviewing applications of eligible entities to receive grants under subsection (a) of this section, the Secretary shall consider—

(A) the ability and expertise of the eligible entity in providing professional energy audits and renewable energy assessments;

(B) the geographic scope of the program proposed by the eligible entity;

(C) the number of farmers, ranchers, and rural small businesses to be assisted by the program;

(D) the potential for energy savings and environmental and public health benefits resulting from the program; and

(E) the plan of the eligible entity for educating farmers, ranchers, and rural small businesses on the benefits of energy efficiency and renewable energy development.

**(d) Use of grant funds**

**(1) Required uses**

A recipient of a grant under subsection (a) of this section shall use the grant funds to conduct and promote energy audits for farmers, ranchers, and rural small businesses to provide farmers, ranchers, and rural small businesses recommendations on how to improve energy efficiency and use renewable energy technology and resources.

**(2) Permitted uses**

In addition to the uses described in paragraph (1), a recipient of a grant may use the grant funds to make farmers, ranchers, and rural small businesses aware of, and ensure that they have access to—

(A) financial assistance under section 8106 of this title; and

(B) other Federal, State, and local financial assistance programs for which farmers, ranchers, and rural small businesses may be eligible.

**(e) Cost sharing**

A recipient of a grant under subsection (a) of this section that conducts an energy audit for a farmer, rancher, or rural small business under subsection (d)(1) of this section shall require that, as a condition of the energy audit, the farmer, rancher, or rural small business pay at least 25 percent of the cost of the audit.

**(f) Use of cost-share funds**

Funds collected by a recipient of a grant under subsection (e) of this section as a result of activities carried out using the grant funds shall be used to conduct activities authorized under this section, as approved by the Secretary.

**(g) Consultation**

In carrying out this section, the Secretary shall consult with the Secretary of Energy.

**(h) Reports**

Not later than 4 years after May 13, 2002, the Secretary shall submit to Congress a report on the implementation of this section.

**(i) Authorization of appropriations**

There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2002 through 2007.

(Pub. L. 107-171, title IX, §9005, May 13, 2002, 116 Stat. 480.)

**§ 8106. Renewable energy systems and energy efficiency improvements**

**(a) In general**

In addition to exercising authority to make loans and loan guarantees under other law, the Secretary shall make loans, loan guarantees, and grants to farmers, ranchers, and rural small businesses to—

- (1) purchase renewable energy systems; and
- (2) make energy efficiency improvements.

**(b) Eligibility**

To be eligible to receive a grant under subsection (a) of this section, a farmer, rancher, or rural small business shall demonstrate financial need as determined by the Secretary.

**(c) Cost sharing**

**(1) In general**

**(A) Grants**

The amount of a grant shall not exceed 25 percent of the cost of the activity funded under subsection (a) of this section.

**(B) Maximum amount of combined grant and loan**

The combined amount of a grant and loan made or guaranteed shall not exceed 50 percent of the cost of the activity funded under subsection (a) of this section.

**(2) Factors**

In determining the amount of a grant or loan, the Secretary shall take into consideration, as applicable—

(A) the type of renewable energy system to be purchased;

(B) the estimated quantity of energy to be generated by the renewable energy system;

(C) the expected environmental benefits of the renewable energy system;

(D) the extent to which the renewable energy system will be replicable;

(E) the amount of energy savings expected to be derived from the activity, as demonstrated by an energy audit comparable to an energy audit under section 8105 of this title;

(F) the estimated length of time it would take for the energy savings generated by the activity to equal the cost of the activity; and

(G) other factors as appropriate.

**(d) Interest rate**

**(1) In general**

A loan made by the Secretary under subsection (a) of this section shall bear interest at the rate equivalent to the rate of interest charged on Treasury securities of comparable maturity on the date the loan is approved.

**(2) Duration**

The interest rate for each loan will remain in effect for the term of the loan.

**(e) Consultation**

In carrying out this section, the Secretary shall consult with the Secretary of Energy.

**(f) Funding**

Of the funds of the Commodity Credit Corporation, the Secretary shall make available to carry out this section \$23,000,000 for each of fiscal years 2003 through 2007.

(Pub. L. 107–171, title IX, §9006, May 13, 2002, 116 Stat. 482.)

**§ 8107. Hydrogen and fuel cell technologies**

**(a) In general**

The Secretary and the Secretary of Energy shall enter into a memorandum of understanding under which the Secretary and the Secretary of Energy shall cooperate in the application of hydrogen and fuel cell technology programs for rural communities and agricultural producers.

**(b) Dissemination of information**

Under the memorandum of understanding, the Secretary shall work with the Secretary of Energy to disseminate information to rural communities and agricultural producers on potential applications of hydrogen and fuel cell technologies.

(Pub. L. 107–171, title IX, §9007, May 13, 2002, 116 Stat. 483.)

**§ 8108. Continuation of bioenergy program**

**(a) Definitions**

In this section:

**(1) Bioenergy**

The term “bioenergy” means—

- (A) biodiesel; and
- (B) fuel grade ethanol.

**(2) Biodiesel**

The term “biodiesel” means a monoalkyl ester that meets the requirements of an appropriate American Society for Testing and Materials standard.

**(3) Eligible commodity**

The term “eligible commodity” means—

- (A) wheat, corn, grain sorghum, barley, oats, rice, soybeans, sunflower seed, rapeseed, canola, safflower, flaxseed, mustard, crambe, sesame seed, and cottonseed;

- (B) a cellulosic commodity (such as hybrid poplar and switch grass);

- (C) fats, oils, and greases (including recycled fats, oils, and greases) derived from an agricultural product; and

- (D) any animal byproduct (in addition to oils, fats, and greases) that may be used to produce bioenergy, as determined by the Secretary.

**(4) Eligible producer**

The term “eligible producer” means a producer that uses an eligible commodity to produce bioenergy.

**(b) Bioenergy Program**

**(1) Continuation**

The Secretary shall continue the program under part 1424 of title 7, Code of Federal Regulations (or any successor regulation), under which the Secretary makes payments to eligible producers to encourage increased purchases of eligible commodities for the purpose of expanding production of such bioenergy and supporting new production capacity for such bioenergy.

**(2) Contracts**

To be eligible to receive a payment, an eligible producer shall—

- (A) enter into a contract with the Secretary to increase bioenergy production for 1 or more fiscal years; and

- (B) submit to the Secretary such records as the Secretary may require as evidence of increased purchase and use of eligible commodities for the production of bioenergy.

**(3) Payment**

**(A) In general**

Under the program, the Secretary shall make payments to eligible producers, based on the quantity of bioenergy produced by the eligible producer during a fiscal year that exceeds the quantity of bioenergy produced by the eligible producer during the preceding fiscal year.

**(B) Payment rate**

**(i) Producers of less than 65,000,000 gallons**

An eligible producer that produces less than 65,000,000 gallons of bioenergy shall be reimbursed 1 feedstock unit for every 2.5 feedstock units of eligible commodity used for increased production.

**(ii) Producers of 65,000,000 or more gallons**

An eligible producer that produces 65,000,000 or more gallons of bioenergy shall be reimbursed 1 feedstock unit for every 3.5 feedstock units of eligible commodity used for increased production.

**(C) Quarterly payments**

The Secretary shall make payments to an eligible producer for each quarter of the fiscal year.

**(4) Proration**

If the amount made available for a fiscal year under subsection (c) of this section is insufficient to allow the payment of the amount of the payments that eligible producers (that

apply for the payments) otherwise would receive under this subsection, the Secretary shall prorate the amount of the funds among all such eligible producers.

**(5) Overpayments**

If the total amount of payments that an eligible producer receives for a fiscal year under this section exceeds the amount that the eligible producer should have received under this subsection, the eligible producer shall repay the amount of the overpayment to the Secretary, with interest (as determined by the Secretary).

**(6) Limitation**

No eligible producer shall receive more than 5 percent of the total amount made available under subsection (c) of this section for a fiscal year.

**(7) Other requirements**

To be eligible to receive a payment under this subsection, an eligible producer shall meet other requirements of Federal law (including regulations) applicable to the production of bioenergy.

**(c) Funding**

Of the funds of the Commodity Credit Corporation, the Secretary shall use to carry out this section—

- (1) not more than \$150,000,000 for each of fiscal years 2003 through 2006; and
- (2) \$0 for fiscal year 2007.

(Pub. L. 107–171, title IX, §9010, May 13, 2002, 116 Stat. 485.)

**§ 8109. Research, extension, and educational programs on biobased energy technologies and products**

**(a) Purposes**

The purposes of the programs established under this section are—

- (1) to enhance national energy security through the development, distribution, and implementation of biobased energy technologies;
- (2) to promote diversification in, and the environmental sustainability of, agricultural production in the United States through biobased energy and product technologies;
- (3) to promote economic diversification in rural areas of the United States through biobased energy and product technologies; and
- (4) to enhance the efficiency of bioenergy and biomass research and development programs through improved coordination and collaboration between the Department of Agriculture, the Department of Energy, and the land-grant colleges and universities.

**(b) Definitions**

In this section:

**(1) Land-grant colleges and universities**

The term “land-grant colleges and universities” means—

- (A) 1862 Institutions (as defined in section 7601 of this title);
- (B) 1890 Institutions (as defined in section 7601 of this title) and West Virginia State College; and

(C) 1994 Institutions (as defined in section 7601 of this title).

**(2) Secretary**

The term “Secretary” means the Secretary of Agriculture.

**(c) Establishment**

To carry out the purposes described in subsection (a) of this section, the Secretary shall establish programs under which—

- (1) the Secretary shall provide grants to sun grant centers specified in subsection (d) of this section; and
- (2) the sun grant centers shall use the grants in accordance with this section.

**(d) Grants to centers**

The Secretary shall use amounts made available for a fiscal year under subsection (j) of this section to provide a grants in equal amounts to each of the following sun grant centers:

**(1) North-central center**

A north-central sun grant center at South Dakota State University for the region composed of the States of Illinois, Indiana, Iowa, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming.

**(2) Southeastern center**

A southeastern sun grant center at the University of Tennessee at Knoxville for the region composed of—

- (A) the States of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia;
- (B) the Commonwealth of Puerto Rico; and
- (C) the United States Virgin Islands.

**(3) South-central center**

A south-central sun grant center at Oklahoma State University for the region composed of the States of Arkansas, Colorado, Kansas, Louisiana, Missouri, New Mexico, Oklahoma, and Texas.

**(4) Western center**

A western sun grant center at Oregon State University for the region composed of—

- (A) the States of Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Utah, and Washington; and
- (B) territories and possessions of the United States (other than the territories referred to in subparagraphs (B) and (C) of paragraph (2)).

**(5) Northeastern center**

A northeastern sun grant center at Cornell University for the region composed of the States of Connecticut, Delaware, Massachusetts, Maryland, Maine, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia.

**(e) Use of funds**

**(1) Centers of excellence**

Of the amount of funds that are made available for a fiscal year to a sun grant center under subsection (d) of this section, the center shall use not more than 25 percent of the amount for administration to support excel-

lence in science, engineering, and economics at the center to promote the purposes described in subsection (a) of this section through the State agricultural experiment station, cooperative extension services, and relevant educational programs of the university.

**(2) Grants to land-grant colleges and universities**

**(A) In general**

The sun grant center established for a region shall use the funds that remain available for a fiscal year after expenditures made under paragraph (1) to provide competitive grants to land-grant colleges and universities in the region of the sun grant center to conduct, consistent with the purposes described in subsection (a) of this section, multiinstitutional and multistate—

- (i) research, extension, and educational programs on technology development; and
- (ii) integrated research, extension, and educational programs on technology implementation.

**(B) Programs**

Of the amount of funds that are used to provide grants for a fiscal year under subparagraph (A), the center shall use—

- (i) not less than 30 percent of the funds to carry out programs described in subparagraph (A)(i); and
- (ii) not less than 30 percent of the funds to carry out programs described in subparagraph (A)(ii).

**(3) Indirect costs**

A sun grant center may not recover the indirect costs of making grants under paragraph (2) to other land-grant colleges and universities.

**(f) Plan**

**(1) In general**

Subject to the availability of funds under subsection (j) of this section, in cooperation with other land-grant colleges and universities and private industry in accordance with paragraph (2), the sun grant centers shall jointly develop and submit to the Secretary, for approval, a plan for addressing at the State and regional levels the bioenergy, biomass, and gasification research priorities of the Department of Agriculture and the Department of Energy for the making of grants under paragraphs (1) and (2) of subsection (e) of this section.

**(2) Gasification coordination**

**(A) In general**

In developing the plan under paragraph (1) with respect to gasification research, the sun grant centers identified in paragraphs (1) and (2) of subsection (d) of this section shall coordinate with land grant colleges and universities in their respective regions that have ongoing research activities with respect to the research.

**(B) Funding**

Funds made available under subsection (d) of this section to the sun grant center identified

in subsection (e)(2) of this section shall be available to carry out planning coordination under paragraph (1) of this subsection.

**(g) Grants to other land-grant colleges and universities**

**(1) Priority for grants**

In making grants under subsection (e)(2) of this section, a sun grant center shall give a higher priority to programs that are consistent with the plan approved by the Secretary under subsection (f) of this section.

**(2) Term of grants**

The term of a grant provided by a sun grant center under subsection (e)(2) of this section shall not exceed 5 years.

**(h) Grant information analysis center**

The sun grant centers shall maintain a Sun Grant Information Analysis Center at the sun grant center specified in subsection (d)(1) of this section to provide sun grant centers analysis and data management support.

**(i) Annual reports**

Not later than 90 days after the end of a year for which a sun grant center receives a grant under subsection (d) of this section, the sun grant center shall submit to the Secretary a report that describes the policies, priorities, and operations of the program carried out by the center during the year, including a description of progress made in facilitating the priorities described in subsection (f) of this section.

**(j) Authorization of appropriations**

**(1) In general**

There are authorized to be appropriated to carry out this section—

- (A) \$25,000,000 for fiscal year 2005;
- (B) \$50,000,000 for fiscal year 2006; and
- (C) \$75,000,000 for each of fiscal years 2007 through 2010.

**(2) Grant information analysis center**

Of amounts made available under paragraph (1), not more than \$4,000,000 for each fiscal year shall be made available to carry out subsection (h) of this section.

(Pub. L. 107-171, title IX, §9011, as added Pub. L. 108-199, div. A, title VII, §778(b), Jan. 23, 2004, 118 Stat. 41.)

**CHAPTER 108—TREE ASSISTANCE PROGRAM**

Sec.	
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8204.	Limitations on assistance.
	(a) Amount.
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8205.	Authorization of appropriations.

**§ 8201. Definitions**

In this chapter:

**(1) Eligible orchardist**

The term “eligible orchardist” means a person that produces annual crops from trees for commercial purposes.